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EXAMINER
SUBRAMANIAN, NARAYANSWAMY

ART UNIT	PAPER NUMBER
3692	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *6/18/2007*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-20,24-37,40-49 and 52-54* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-20,24-37,40-49 and 52-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/19/07*.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

1.   This office action is in response to applicants' communication filed on June 18, 2007.

Amendments to claims 17, 24-31, 37, 40-44 and 52-54 have been entered. Claims 3-20, 24-37,

40-49 and 52-54 are currently pending and have been examined. The rejections and response to

arguments are stated below.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions
> and requirements of this title.

3.   Claims 3-20, 24-37, 40-49, and 52-54 are rejected under 35 U.S.C. § 101 because the

claimed invention is directed to non-statutory Subject matter.

35 USC 101 requires that in order to be patentable the invention must be a "new and

useful process, machine, manufacture, or composition of matter, or any new and useful

improvement thereof" (emphasis added).

Claims 3-20, 24-37, 40-49, and 52-54 are drawn to "computer-implemented method for

displaying information relating to one or more analysts' estimates for a selected future event,

comprising: retrieving, from a database, information relating to one or more analysts' historical

estimates for one or more events, and information relating to one or more analysts' estimates for

one or more future events; determining an indication of historical accuracy for the one or more

analysts based, in part, on the information relating to the one or more analysts' historical

estimates for the one or more events; and displaying simultaneously for a user-selected security,

on an analyst by analyst basis only for top analysts that have a current estimate for the user-

selected security, i) an indication of historical accuracy for an analyst; and ii) the analyst's

estimate for a future event for the user-selected security". As such the claimed invention is directed to a judicial exception to 35 U.S.C. 101 (i.e., an abstract idea, natural phenomenon, or law of nature) and is not directed to a practical application of such judicial exception because the claims do not require any physical transformation and the invention as claimed does not produce a useful, concrete, and tangible result.

The Court of Appeals for the Federal Circuit issued opinions in State Street Bank & Trust Co. v. Signature Financial Group Inc., 149 F. 3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998) and AT&T Corp. v. Excel Communications, Inc., 172 F.3d 1352, 50 USPQ2d 1447 (Fed. Cir. 1999). These decisions explained that, to be eligible for patent protection, the claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601 02. To satisfy section 101 requirements, the claim must be for a practical application of the § 101 judicial exception, which can be identified in various ways: (a) The claimed invention "transforms" an article or physical object to a different state or thing. (b) The claimed invention otherwise produces a useful, concrete and tangible result, based on the factors discussed below.

The USPTO's official interpretation of the utility requirement provides that the utility of an invention has to be (i) specific, (ii) substantial and (iii) credible. See MPEP § 2107. The claimed invention does not meet this requirement.

The tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-

77 (invention ineligible because had "no substantial practical application"). There is no tangible result produced from implementing the steps of the claimed invention.

For an invention to produce a "concrete" result, the process must have a result that can be substantially repeatable or the process must substantially produce the same result again. In re Swartz, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000) (where asserted result produced by the claimed invention is "irreproducible" claim should be rejected under section 101). The opposite of "concrete" is unrepeatable or unpredictable.

There is no useful, concrete and tangible result produced from implementing the steps of the claimed invention. The dependent claims are rejected for the same reason and by way of dependency on a rejected independent claim.

The claims 3-20, 24-37, 40-49, and 52-54 recite a non-statutory process

The instant claims recite mathematical algorithm which solve a problem of display of information (as recited in the claims3-20, 24-37, 40-49, and 52-54) A mathematical algorithm is defined as a "procedure for solving a given type of mathematical problem." *Gottschalk v. Benson*, 409 U.S. 63, 65, 175 USPQ 673, 674 (1972); *Flook*, 437 U.S. at 585 n.1. 198 USPQ at 195 n.1: Diehr, 450 U.S. at 186, 209 USPQ at 8. **Mathematical algorithms are non- statutory because they have been determined not to fall within the § 101 statutory class of a "process."** *Benson.* "[A]n algorithm, or mathematical formula, is like a law of nature, which cannot be the subject of a patent." *Diehr,* 450 U.S. at 186, 209 USPQ at 8. The exception applies only to mathematical algorithms since any process is an " algorithm" in the sense that it is a step-by-step procedure to arrive at a given result. *In re Walter,* 618 F.2d 758, 764 n.4, 205 USPQ 397, 405 n.4, (CCPA 1980); *Pardo,* 684 F.2d at 915, 214 USPQ at 676.

A mathematical algorithm is not made statutory by "attempting to limit the use of the

formula to a particular technological environment." *Diehr*, 450 U.S. at 191, 209 USPQ at 10.

Thus, "field of use" or "end use" limitations in the claim preamble are insufficient to constitute a

statutory process. This is consistent with the usual treatment of preambles as merely setting forth

the environment. See *Flook* (the preamble while limiting the application of the claimed method

to "a process comprising the catalytic chemical conversion of hydrocarbons" did not serve to

render the method statutory); Walter, 618 F.2d at 769, 205 USPQ at 409 ("Although the claim

preambles relate the claimed invention to the art of seismic prospecting, the claims themselves

are not drawn to methods of or apparatus for seismic prospecting"); *de Castelet*, 562 F.2d at

1244 n.6. 195 USPQ at 446 n.6 ("The potential for misconstruction of preamble language

requires that compelling reason exist before that language may be given weight"). Compare

Waldbaum, 559 F.2d at 616 n.6. 194 USPQ 469 n.6 (portion of preambles referred to in method

portion of claims "are necessary for completeness of the claims and are proper limitations

thereto").

Data-gathering steps

If the only limitations in the claims in addition to the mathematical algorithm are data-

gathering steps which "merely determine values for the variables used in the mathematical

formulae used in making the calculations." Such antecedent steps are insufficient to change a

nonstatutory method of calculation into a statutory process. See *In re Richman*, 563 F.2d at 1030.

195 USPQ at 343; *Sarkar*, 588 F.2d at 1335. 200 USPQ at 139 ("If the steps of gathering and

substituting values were alone sufficient, every mathematical equation, formula, or algorithm

having any practical use would be per se subject to patenting as a 'process' under §101"):

Gelnovatch, 595 F.2d at 41 n.7. 201 USPQ at 145 n.7.

The claimed inventions recite data gathering step (display of information). When viewed in light of the specification, this step constitutes data gathering. As per the court rulings cited above, the claims constitute mathematical algorithm(s) applied to data gathered in the respective process steps. The fact that a mathematical algorithm is applied to solve a problem of updating a display of information does not make the claim statutory. *Walter*, 618 F.2d at 764-65 n.4, 205 USPQ at 405 n.4. "The type of mathematical computation involved does not determine whether a procedure is statutory or nonstatutory." *In re Gelnovatch*, 595 F.2d 32, 41.201 USPQ 136, 145 (CCPA 1979). A "claim for an improved method of calculation, even when tied to a specific end use, is unpatentable subject matter under §101." *Flook*, 437 U.S. at 595 n.18, 198 USPQ at 199 n.18. Mathematical algorithms may represent scientific principles, laws of nature, or ideas or mental processes for solving complex problems. See *Meyer*, 688 F.2d at 794-95, 215 USPQ at 197. The dependent claims are rejected for the same reason and by way of dependency on rejected independent claims.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5.   Claims 3-20, 24-37, 40-49, and 52-54 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claims 3-20, 24-37, 40-49, and 52-54 recite the limitation "a user-selected security and/or a selected future event and/or selected analysts".

However there are no steps in these claims that perform the step of selection. Also it is not clear

what a "a user-selected security" has to do with the steps of retrieving, from a database and

determining an indication of historical accuracy for the one or more analysts because there is

nothing in these steps that ties these steps to a security. Appropriate clarification/correction is

required.

Response to Arguments

6.   Applicant's arguments with respect to pending claims have been considered but are not

persuasive.

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from

the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the

mailing date of this final action and the advisory action is not mailed until after the end of the

THREE-MONTH shortened statutory period, then the shortened statutory period will expire on

the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory

period for reply expire later than SIX MONTHS from the date of this final action.

          Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dr. Narayanswamy Subramanian whose telephone number is

(571) 272-6751. The examiner can normally be reached Monday-Thursday from 8:30 AM to

7:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kambiz Abdi can be reached at (571) 272-6702. The fax number for Formal or

Official faxes and Draft to the Patent Office is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PMR or Public PAIR. Status information for unpublished

applications is available through Private PMR only. For more information about the PMR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dr. N. Subramanian
Primary Examiner
Art Unit 3692

September 4, 2007